

Appl. No. 09/724,569
 Amdt. dated April 5, 2005
 Reply to Office Action of December 29, 2005

PATENT

APPENDIX

Claim	Location of support in 60/139,172, filed June 15, 1999
56. (Currently Amended) An isolated nucleic acid, comprising a sequence of nucleotides that encodes a β -secretase protein	Page 17, lines 12-15
beginning at residue 46 and extending to position 452 of SEQ ID NO:2 or up to several amino acids beyond but lacking a transmembrane region that is at least 95% identical to a protein selected from the group consisting of SEQ ID NO: 66, SEQ ID NO: 43, SEQ ID NO: 57, SEQ ID NO: 74, SEQ ID NO: 58, SEQ ID NO: 59, SEQ ID NO: 60, SEQ ID NO: 67, SEQ ID NO: 68, SEQ ID NO: 69, SEQ ID NO: 70, SEQ ID NO: 75, and SEQ ID NO: 71,	Page 29, line 26 - page 30, line 9
or a complementary sequence of any of such nucleotides, and specifically excluding a nucleic acid encoding a protein having the sequence SEQ ID NO:2.	Page 3, lines 11-13
61. (Original) A expression vector, comprising the isolated nucleic acid of claim 56, and operably linked to said nucleic acid, regulatory sequences effective for expression of the nucleic acid in a selected host cell.	Page 46, lines 18-23; and page 48, lines 3-5

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Claim	Location of support in 60/139,172, filed June 15, 1999 (6420US)
62. (Original) The recombinant expression vector of claim 61, wherein said vector is suitable for transfection of a bacterial cell.	Page 46, lines 16-18
63. (Currently Amended) A heterologous cell transfected with the <u>a</u> vector of claim 61, <u>comprising a nucleic acid operably linked to regulatory sequences effective for expression of the nucleic acid in the selected host cell, wherein the nucleic acid is expressed as wherein said cell expresses.</u> <u>a biologically active β-secretase beginning at residue 46 and ending at position 452 or up to several amino acids beyond position 452 of SEQ ID NO:2 but lacking a transmembrane region</u>	Claim 11 as originally filed Page 46, lines 18-23; and page 48, lines 3-5 Page 29, line 26 - page 30, line 9
64. (Original) The cell of claim 63, wherein said cell is a eukaryotic cell.	Page 46, lines 16-18
65. (Original) The cell of claim 63, wherein said cell is a bacterial cell.	Page 46, lines 16-18
66. (Original) The cell of claim 63, wherein said cell is an insect cell.	Page 46, lines 16-18
67. (Original) The cell of claim 63, wherein said cell is a yeast cell.	Page 46, lines 16-18

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Claim	Location of support in 60/139,172, filed June 15, 1999 (6420US)
<p>68. (Original) A method of producing a recombinant β-secretase enzyme, comprising culturing a cell according to claim 63 under conditions to promote growth of said cell,</p> <p>and subjecting an extract or cultured medium from said cell to an affinity matrix.</p>	<p>Page 48, lines 3-12</p> <p>Page 52, lines 18-25</p>
<p>69. (Original) The method of claim 68, wherein said affinity matrix contains a β-secretase inhibitor molecule.</p>	<p>Page 52, lines 22-25</p>
<p>70. (Previously Presented) The method of claim 69, wherein said inhibitor molecule is SEQ ID NO: 72.</p>	<p>Page 52, lines 22-25</p>
<p>71. (Original) The method of claim 68, wherein said matrix contains an antibody characterized by an ability to bind β-secretase.</p>	<p>Claim 61 as filed</p>
<p>72. (Currently Amended) The method of claim 71, wherein said antibody is according to claim 55 <u>reactive with a protein selected from the group consisting of SEQ ID NO: 58, SEQ ID NO: 59, SEQ ID NO: 66, SEQ ID NO: 67, SEQ ID NO: 68, SEQ ID NO: 69, SEQ ID NO: 70 and SEQ ID NO: 74.</u></p>	<p>Claim 62 as filed; page 10, lines 9-16; and page 29, line 26 - page 30, line 6</p>
<p>73. (Currently Amended) A heterologous cell, comprising</p>	<p>Claim 11 as filed</p>

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(i) a nucleic acid molecule, <u>operably linked</u> to a regulatory sequence, whereby the nucleic acid is <u>expressed as encoding an active β-secretase protein according to claim 55</u>	Page 48, lines 3-5; and page 47, lines 1-3
<u>beginning at residue 46 and ending at position 452 or up to several amino acids beyond position 452 of SEQ ID NO:2 but lacking a transmembrane region</u>	Page 29, line 26 - page 30, line 6
(ii) a nucleic acid molecule <u>operably linked</u> to a regulatory sequence, whereby the nucleic acid molecule <u>is expressed as encoding a β-secretase substrate molecule;</u> and	Page 47, lines 7-9; and page 48, lines 3-5
(iii) operatively linked to (i) and (ii), a regulatory sequence effective for expression of said nucleic acid molecules in said cell.	Page 47, lines 23-30
74. (Original) The cell of claim 73, wherein said nucleic acid encoding said β -secretase protein is heterologous to said cell.	Page 13, lines 29-30; page 14, lines 1-4; and page 36, lines 25-26
75. (Original) The cell of claim 73, wherein both said nucleic acids encoding said β -secretase protein encoding said β -secretase substrate molecule are heterologous to said cell.	Page 13, lines 29-30; page 14, lines 1-4; and page 36, lines 25-26; and page 47, lines 7-9
76. (Original) The cell of claim 73, wherein said β -secretase substrate molecule is selected from the group consisting of MBP-C125wt, MBP-C125sw,	Page 73, lines 1-14

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Claim	Location of support in 60/139,172, filed June 15, 1999 (6420US)
APPwt, APPsw, and β -secretase cleavable fragments thereof.	Claim 39 as filed
77. (Original) The cell of claim 76, wherein said β -secretase-cleavable fragment has a sequence selected from the group consisting of SEQ ID NO: 82,	Claim 40 as filed
SEQ ID NO: 83,	Page 76, lines 15-16; and Claim 40 as filed
SEQ ID NO: 84, SEQ ID NO: 85, SEQ ID NO: 86, SEQ ID NO: 87, SEQ ID NO: 88, SEQ ID NO: 89, SEQ ID NO: 90, SEQ ID NO: 91, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, and SEQ ID NO: 96.	Claim 40 as filed